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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,791

10/04/2005

Martin Bruninger

P05,0154

3445

26574

7590

07/09/2009

SCHIFF HARDIN, LLP  
PATENT DEPARTMENT  
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EXAMINER

TRAN, NAM T

ART UNIT

PAPER NUMBER

2452

MAIL DATE

DELIVERY MODE

07/09/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/531,791	<b>Applicant(s)</b> BRUNNINGER ET AL.	
	<b>Examiner</b> NAM TRAN	<b>Art Unit</b> 2452	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 69-110 is/are pending in the application.
- 4a) Of the above claim(s) 91-110 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 69-90 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/18/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. Claims 1-68 are cancelled.
2. Claims 69-90 are pending.
3. Claims 91-110 have been withdrawn from consideration.

***Election/Restrictions***

4. Claims 91-110 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 05/22/2009.
5. Applicant's election with traverse of Group I in the reply filed on 05/22/2009 is acknowledged. The traversal is on the ground(s) that all of the claims (69-110) relate to a graphical user interface for a printer or copier and the search of the Group I claims (69-90) necessarily involves a search of the Group II (91-92) and Group III (93-110) claims. This is not found persuasive because Group II is a method of generating a GUI for a printer or copier and Group III is a system for diagnosing a printer or copier, both of which would not involve a search of the Group I claims, which is a method of downloading a program.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Objections***

6. Claim 82 is objected to because of the following informalities: Claim 82 recites "executed by this". It is unclear what "this" refers to. As such, Examiner will interpret "this" as "the operating unit". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 69-70, 72, 74-80, 84, 86, and 88-90 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (European Patent Application Publication No. 0843230, hereinafter "Kim").

**Claim 69:**

Kim discloses a method for loading of program data for a graphical user interface for operation or for diagnosis of a printer or copier (Column 5, Lines 11-22), comprising the steps of:

transferring first data stored in a first storage region of a control unit of a printer or copier from the control unit to an operating unit with aid of a browser program module executed by the operating unit of the printer or copier, the first data containing at least specifications about at least one program module necessary for generation of operating

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or diagnosis functions (Column 9, Line 51 – Column 10, Line 6; A user requests the HTML page containing a JAVA applet tag. The tag is used to locate the JAVA applet code in order to download it);

with help of the operating unit, checking whether program data that contain the necessary program module are contained in an archive cache of the operating unit in which program data can be stored and read out independent of network address (Column 12, Lines 25-29; If the applet has already been downloaded, it will be resident in the browser's cache and the applet will not be transferred; Column 6, Lines 40-48 and Fig. 13A both discuss how a JAVA applet is used to create a SNMP client, which is used to exchange monitoring and control data between network peripherals, such as copiers, and network workstations. As JAVA applets are platform-independent segments of executable code, an applet developed to monitor and control ACME Copier Model 1A would work only on any ACME Copier Model 1A regardless of what network address the copier has as long as the copier is accessible via the network);

given non-existent program data with the necessary program module in the archive cache, transferring the program data from a further storage region of the control unit to the operating unit and storing the data in the archive cache (Column 12, Lines 25-29; If the applet has not already been downloaded, it will not be resident in the browser's cache and the applet will be transferred); and

executing instructions of the necessary program module by the operating unit (Column 10, Lines 7-11; Once the applet is downloaded, the applet is executed).

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Claim 70:

Kim further discloses the operating unit and a service and maintenance computer are connected with the same control unit via respectively one data connection (Column 3, Lines 55-58; Also see Fig. 1 where it is illustrated that workstations 9 and 16 use the same connection, LAN 15, to connect to the NIB 14).

Claims 72 and 86:

Kim further discloses program data of a plurality of program modules are contained in the archive cache of the operating unit (Column 12, Lines 25-29; If the applet has already been downloaded, it will be resident in the browser's cache; Column 4, Lines 9-11 disclose that a LAN may have multiple printers attached), which program data are loaded and executed independent of a network address of the control unit by the operating unit (Column 6, Lines 40-48 and Fig. 13A both discuss how a JAVA applet is used to create a SNMP client, which is used to exchange monitoring and control data between network peripherals, such as copiers, and network workstations. As JAVA applets are platform-independent segments of executable code, an applet developed to monitor and control ACME Copier Model 1A would work only on any ACME Copier Model 1A regardless of what network address the copier has as long as the copier is accessible via the network).

Claims 74 and 88:

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Kim further discloses the archive cache comprises a storage region of a fixed disc storage or of an exchangeable data medium (Column 7, Lines 6-7).

Claim 75:

Kim further discloses the first data contain at least a printer type or an output state of the printer or copier (Column 10, Lines 41-45; Also see Fig. 7).

Claims 76 and 89:

Kim further discloses a plurality of program modules are stored in the archive cache (Column 12, Lines 25-29; If the applet has already been downloaded, it will be resident in the browser's cache; Column 4, Lines 9-11 disclose that a LAN may have multiple printers attached), a program module being selected with aid of the first data (Column 9, Lines 51-56; The HTML page contains a JAVA applet tag, which is used to determine which applet to load from the cache).

Claims 77 and 90:

Kim further discloses the first data contain a program module with whose execution further first data ("HTML file") and second data ("JAVA applet") are loaded, whereby the first data contain a program module for communication control between the control unit and the operating unit, and a program module for provision of operating or diagnosis functions (Column 5, Lines 18-22), the first data being contained in at least one file (Column 6, Lines 28-36; The "first data" is the HTML file, which contains a reference to

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a second data, the JAVA applet. The HTML file is used to monitor and control the network peripheral, or copier).

Claim 78:

Kim further discloses the first data or program data contain a Java applet or an ActiveX program element (Column 8, Lines 38-42; See also Column 12, Lines 48-52).

Claim 79:

Kim further discloses the control unit is connected with a service and maintenance computer over a remote data transfer connection (Column 7, Lines 7-11).

Claim 80:

Kim further discloses the remote data transfer connection comprises a point-to-point connection (Column 7, Lines 7-11; Communication over a modem interface is considered point-to-point).

Claim 84:

Kim discloses a method for loading of program data for a graphical user interface for operation or for diagnosis of a printer or copier, comprising the steps of:

transferring first data stored in a first storage region of a control unit of the printer or copier from the control unit to a service and maintenance computer with aid of a browser program module executed by the service and maintenance computer



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connected with the printer or copier over a data connection, the first data containing at least specifications about at least one program module necessary for generation of operating or diagnosis functions (Column 9, Line 51 – Column 10, Line 6; A user requests the HTML page containing a JAVA applet tag. The tag is used to locate the JAVA applet code in order to download it);

with help of the service and maintenance computer, checking whether program data that contain the necessary program module are contained in a storage region of the service and maintenance computer (Column 12, Lines 25-29; If the applet has already been downloaded, it will be resident in the browser's cache and the applet will not be transferred);

given non-existent program data with the necessary program module in the storage region of the service and maintenance computer, transferring the program data from a further storage region of the control unit to the service and maintenance computer and storing the data in the storage region of the service and maintenance computer (Column 12, Lines 25-29; If the applet has not already been downloaded, it will not be resident in the browser's cache and the applet will be transferred);

executing instructions of the necessary program module by the service and maintenance computer (Column 10, Lines 7-11; Once the applet is downloaded, the applet is executed); and

with aid of the service and maintenance computer, in addition to diagnosis functions and modifications of setting values and parameters, enabling same operator control actions to an operating personnel as are possible with aid of an operating unit connected with

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the control unit (Column 3, Lines 55-58; Also see Fig. 1, Elements 9 and 16; Multiple workstations can connect to a copier at once to monitor and control the copier).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 71 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (European Patent Application Publication No. 0843230, hereinafter "Kim").

Claims 71 and 85:

Kim discloses the method as recited in claim 69 and the method as recited in claim 84.

Kim does not expressly disclose that web browsers have cache settings that determine how browsed pages and applets are cached. However, it is well known in the art that web browsers have cache settings.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify Kim's web browser with the addition of cache settings, in order to save bandwidth (If a browsed page or applet has already been downloaded and the

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webpage is revisited, loading the browsed page or applet from the browser's cache saves bandwidth because a new webpage request does not have to be made).

11. Claims 73 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (European Patent Application Publication No. 0843230, hereinafter "Kim") in view of Yinger et al. (U.S. Patent No. 5960204, hereinafter "Yinger").

Claims 73 and 87:

Kim discloses the method as recited in claim 69 and the method as recited in claim 84.

Kim does not disclose a version state of the program module stored as program data in the archive cache is compared with a version state of the necessary program module before transfer of the program data or before loading of the program data.

Yinger discloses a method for installing an application on a computer comprising checking whether the most current version of the application modules are on the computer (Column 5, Lines 48-58).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify Kim's method by integrating the capability of comparing version information, as taught by Yinger, in order to increase efficiency of the program data

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transfer process (If the client computer already has the current version of a given application, there is no need to transfer the program data).

12. Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (European Patent Application Publication No. 0843230, hereinafter "Kim") in view of Franceschelli, Jr. et al. (U.S. Patent No. 7350149, hereinafter "Franceschelli"); and further in view of Ohira et al. (U.S. Patent No. 4860055, hereinafter "Ohira"); and further in view of Morishita et al. (U.S. Patent No. 5485247, hereinafter "Morishita").

Claim 81:

Kim discloses the method as recited in claim 69 wherein the first data or program data contain:

a primary loader program (Column 6, Lines 32-36; Applets can be loaded to monitor and control copiers),

printer-specific information (See Fig. 10, which depicts various printer-specific information presented in a GUI),

program modules for generation of a graphical user interface (Column 7, Lines 43-46; Also see Fig. 7),

program modules for access to a databank of the printer or copier (See Fig. 10, which depicts various printer-specific information presented in a GUI. The program module accesses a databank of the copier to display the printer-specific information),

program modules for implementation of an authentication (Column 15, Lines 30-44), and

program modules for access to an event registration or program modules for access to an error storage (See Fig. 16, which depicts a "Transfer Wire Cleaning" error that is obtained from an error storage on the copier).

Kim does not expressly disclose the first data or the program data contain program modules for an RMI communication, program modules for diagnosis of a paper input unit, a paper path controller, and a paper output unit or a printing unit.

Franceschelli discloses a backup reporting framework graphical user interface comprising program modules for an RMI communication (Column 3, Lines 40-42).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify Kim's method by incorporating the use of RMI communication, as taught by Franceschelli, in order to take advantage of a standard.

Ohira discloses an image forming apparatus comprising the capability of evaluating the remaining quantity of sheets of paper (Column 9, Lines 20-30; Evaluating the remaining quantity of sheets of paper corresponds to diagnosis of a paper input unit).

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At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify Kim and Franceschelli's method by adding the capability of evaluating the remaining quantity of sheets of paper in a copier, as taught by Ohira, in order to display the remaining quantity of copy sheets to a user for informational purposes (Ohira, Column 1, Lines 45-51).

Morishita discloses a device with an improved paper jam detection method comprising the capability of detecting paper jams and displaying the indication of a paper jam and its location on a display panel (Column 7, Lines 19-35; Detection of paper jams corresponds to diagnosis of a paper path controller and paper output unit).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify Kim and Franceschelli's method by adding the capability of detecting paper jams in a copier, as taught by Morishita, in order to more quickly diagnose paper jams in a copier.

13. Claim 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (European Patent Application Publication No. 0843230, hereinafter "Kim") in view of Franceschelli, Jr. et al. (U.S. Patent No. 7350149, hereinafter "Franceschelli").

Claim 82:

Kim discloses the method as recited in claim 69.

Kim does not disclose the first data or the program data contain Java applications that are transferred with aid of a Java Web Start technology to the operating unit and executed by the operating unit.

Franceschelli discloses a backup reporting framework graphical user interface comprising using a JNLP file to launch a Java Web Start application (Column 6, Lines 61-67; Also see Column 7, Lines 7-15).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify Kim's method by incorporating the use of JNLP files to launch Java Web Start applications, as taught by Franceschelli, in order to take advantage of a standard.

14. Claim 83 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (European Patent Application Publication No. 0843230, hereinafter "Kim") in view of Rabb et al. (U.S. Patent No. 6636899, hereinafter "Rabb"); and further in view of Oberhoffner et al. (U.S. Patent No. 6241239, hereinafter "Oberhoffner"); and further in view of Negishi et al. (U.S. Patent No. 4998835, hereinafter "Negishi"); and further in view of Jackson (U.S. Patent No. 5809390, hereinafter "Jackson").

Claim 83:

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Kim discloses the method as recited in claim 69 wherein the program data contain program elements for:

- adjustment of parameters (Fig. 17, Element 190 lists various parameters that can be adjusted),

- counter values (Fig. 17, Element 190 lists "Counter" as a diagnostic or maintenance function),

- counter limit values (Fig. 17, Element 190 lists "Counter" as a diagnostic or maintenance function), and

- status information (Fig. 16, Element 180 displays the copier's status as "Idle").

Kim also discloses the program data contain program elements for mechanical and electrical systems (Fig. 16, Elements 182 and 183), but fails to specifically disclose voltage levels to be set as well as program elements for implementation of light barrier routines, motor test routines and valve routines.

Rabb discloses an architecture of software for remote maintenance of a copier comprising adjusting voltage levels to be set (Column 6, Lines 1-3).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify Kim's electrical systems program data by adding the capability of adjusting voltage levels, as taught by Rabb, in order to more finely tune the performance of a copier (Rabb, Column 1, Lines 42-46).



Oberhoffner discloses a printing device comprising a light barrier (Column 3, Lines 20-21).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify Kim's mechanical systems program data by adding the capability of implementing light barriers, as taught by Oberhoffner, in order to recognize paper jams (Oberhoffner, Column 3, Lines 21-25).

Negishi discloses a device for feeding a continuous form in a printer wherein a timer is used to adjust the operation of a drive motor for the printer (Column 1, Lines 64-67; See also Column 2, Lines 1-6; Measuring the feeding speed corresponds to testing a motor).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify Kim's mechanical systems program data by adding the capability of test drive motors, as taught by Negishi, in order to adjust the width of a pulse operating a pulse motor for driving the feed roller thereby minimizing the error in printing one page does not become accumulated on subsequent pages (Negishi, Column 1, Lines 31-48).

Jackson discloses a device for controlling paper movement in a "continuous forms" printer comprising a vacuum adjust valve that regulates the amount of tension provided by the vacuum transport device (Column 7, Lines 4-6).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify Kim's mechanical systems program data by adding the capability of adjusting vacuum adjust valves, as taught by Jackson, in order to properly regulate the speed of the drive roll thereby maintaining proper paper tension (Jackson, Column 7, Lines 9-13 and Lines 25-30).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAM TRAN whose telephone number is (571)270-7901. The examiner can normally be reached on MONDAY TO THURSDAY, 7:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN FOLLANSBEE can be reached on (571)272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NAM TRAN  
Examiner, Art Unit 2452

/Kenny S Lin/  
Primary Examiner, Art Unit 2452